

DETAILED ACTION

Continued Examination under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/11/2009 has been entered. Claims 1, 11 and 20 are amended. Claim 29 is new. Claims 1-3, 6, 8-13, 15-16, 18-21 and 23-29 are currently pending.

2. Amendment received 03/02/2009 was entered into record. Claims 1, 11, 15-16 and 20 were amended. Claims 4-5, 7, 14, 17 and 22 were cancelled. Claims 25-28 were new.

3. Applicant's submission filed on 06/27/2008 was entered. Claims 1, 11 and 20-23 were amended. Claim 24 was new.

4. Amendment received on 08/31/2007 was entered into record. Claims 1-12, 14-16 and 20 were amended. Claims 21-23 were new.

Priority

5. This application is a CIP of 10/366,236 filed on 02/13/2003 which claims benefit of 60/359,098 filed on 02/22/2002 and claims benefit of 60/392,217 filed on 06/27/2002. The filing date is 06/26/2003.

Examiner's Amendment

6. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

7. Authorization for this examiner's amendment was given in a telephone interview with Nathan L. Feld (reg. no. 59,726) on 02/02/2010.

8. The application has been amended against applicant submitted claim set dated 12/11/2009 as follows (only examiner amended claims are shown):

IN THE CLAIMS

11. (Currently Amended) A method for use in providing access to web services, comprising:

intercepting at a web server computer a web service invoke request using a protocol adapter, wherein the invoke request is a web service message having a message format and where the invoke request includes parameters;

converting the message format of the invoke request by the protocol adapter;

creating an initial message context including the invoke request, a placeholder for a response, and information about a transport;

routes the invoke request with the initial message context to an appropriate web services container based on a target of the invoke request;

receiving, at a container driver, the invoke request and the initial message context from the protocol adapter;

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forwarding the initial message context for the invoke request for a web service to one of a plurality of interceptors, wherein the plurality of interceptors are utilized by the container driver to access inbound and outbound web service message, and wherein the initial message context includes a plurality of parts, wherein each part includes corresponding content;

modifying the content of one or more of the parts of the initial message context to produce modified message context;

returning the modified message content to the container driver;

receiving the modified message context from the container driver at an invocation handler, wherein the invocation handler

passes the parameters from the modified message context to the target of the request,

processes values returned from the target, and

passes the values to the container driver such that the container driver can formulate a response to the invoke request;

storing, in an invocation context, context data for processing the invoke request including a conversation ID, a message sequence number, and a security token, wherein the invocation context is an inheritable, thread local object which is accessible to the protocol adapter, interceptors and invocation handler, and wherein an invocation handler controls read/write access to the invocation context.

Reasons for Allowance

9. Claims 1-3, 6, 8-13, 15-16, 18-21 and 23-29 are allowed as amended above.

The following is an examiner's statement of reasons for allowance:

The closest prior arts of record issued to Amirisetty et al. (US 7152090 B2) fails to teach or suggest "a storage medium including software system applications for providing access to web services, comprising: a protocol adapter that intercepts a web service invoke request wherein the invoke request is a web service message that has a message format and includes parameters, converts the message format of the invoke request, creates an initial message context including the invoke request, a placeholder for a response, and information about a transport, and routes the invoke request with the initial message context to an appropriate web services container based on a target of the invoke request; a container driver, at the web services container, that receives the invoke request and initial message context from the protocol adapter; a plurality of interceptors, utilized by the container driver to access inbound and outbound web service messages; wherein the container driver forwards the initial message context to one of the plurality of interceptors that receives the initial message context which includes a plurality of parts, wherein each part includes corresponding content, modifies the content of one or more of the parts of the initial message context to produce modified message context, and returns the modified message context to the container driver; an invocation handler that receives the modified message context from said container driver, passes the .parameters from the modified message context to the target of the request, processes values returned from the target, and passes the values to the container driver, such that the container driver can formulate a response to the invoke request; and an invocation context that stores context data for processing the invoke

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request including a conversation ID, a message sequence number, and a security token, wherein the invocation context is an inheritable, thread local object which is accessible to the protocol adapter, interceptors and invocation handler, and wherein the invocation handler controls read/write access to the invocation context” in combination with all the elements of each independent claim as argued by Applicant. Applicant argues that Amirisetty does not disclose the limitation combination of “a protocol adapter that routes the invoke request with the initial message context to an appropriate web services container based on a target of the invoke request”, “modifies the content of one or more of the parts of the initial message context to produce modified message context, and returns the modified message context to the container driver” and “an invocation context that stores context data for processing the invoke request including a conversation ID, a message sequence number, and a security token, wherein the invocation context is an inheritable, thread local object which is accessible to the protocol adapter, interceptors” (see 3rd and 5th paragraphs on page 11, 7th paragraph on page 11 through 1st paragraph on page 12 of current amendment). These arguments are considered persuasive. Independent claims 1, 11, 20 and 29 are to be allowed upon further search and examination, including additional consideration of prior arts as noted in the Remarks of Office Action mailed in 06/18/2009.

The dependent claims further limit the independent claims and are considered allowable on the same basis as the independent claims as well as for the further limitations set forth. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peling A. Shaw whose telephone number is (571) 272-7968. The examiner can normally be reached on M-F 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William C. Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Peling A Shaw/
Examiner, Art Unit 2444